In Pursuit of Life and Liberty Ships

By Dave Trubey, BUAR

Despite being branded by Franklin D. Roosevelt with the less than flattering nickname of "the ugly ducklings," perhaps no other vessels revolutionized American shipbuilding as did the Liberty Ships of WWII.

In the early years of war, Great Britain relied heavily on allied shipping to supplement its dwindling supplies of food and raw materials. The fall of France in 1940 brought this situation to a crisis point with the German navy launching highly destructive U-boat strikes from ports all along the 2,500-mile French coast. In an attempt to counter this deadly threat, Great Britain turned to the United States to provide 60 new cargo vessels based on a simple British design. The 60 vessels were quickly followed by the implementation of an emergency building program in the U.S., which by 1942, called for 1,600 ships.

Under the direction of Henry Kaiser and the auspices of the Maritime Commission, the principles of mass production were, for the first time, incorporated into the shipbuilding trade on such a large and successful scale. Whereas traditional shipbuilding was from the keel up with the vessel being completely constructed on the ways, Kaiser's plan was based on modular hull construction and included the production of more than 30,000 components per ship in thousands of factories across the country. In shipyards on both coasts, entire bulkheads were pre-assembled in different areas of the yards from which they were moved in assembly-line fashion and attached to bow and stern sections. In another break from traditional construction techniques, the welding of hull plates replaced the labor-intensive practice of riveting, resulting in a much smoother hull with less friction through the water. The successful application of mass production to the Liberty Ship building program meant that more ships could be constructed in a smaller amount of space and with unprecedented speed.

By the fall of 1942, the production rate of the Liberty Ships had far exceeded the expectations of the Maritime Commission with an average construction period of 70 days. In September, Henry Kaiser's Portland, Oregon yard set a record by completing the *Joseph N. Teal* in a mere 10 days. By the end of the war,15 shipyards had produced 2,710 Liberty Ships. Combined with the construction of other freighters and auxiliary naval craft, this massive undertaking resulted in an increase in U.S. shipbuilding for the years 1941 to 1945 of nearly 1,200 percent and an increase in the industry's workforce of nearly 1,400,000 workers.

The standard Liberty Ship, categorized by the Maritime Commission as an EC2 ("Emergency Cargo") vessel measured between 400 and 450 feet in length, nearly 60 feet in breadth, drew close to 40 feet of water and typically had five holds for dry cargo. Due to a shortage of diesel engines and turbines—the U.S. production of which was designated for its own naval vessels—the Liberty Ships were commonly powered by coal fired triple-expansion reciprocating steam engines, which produced a maximum speed of approximately 11 knots.

Service on a Liberty Ship was considered a dangerous task to say the least. While the assembly process was speedy, Liberty Ships, especially when fully laden with cargo, were slow in the water, making them easy prey for German U-boats. Although intended to traverse the seas in convoy and with a naval escort, this was not always possible, particularly as the war progressed and naval resources were spread thin. The combined lack of speed and escorts, in addition to some early structural problems, earned these vessels the dubious nickname of "Kaiser's Coffins" as many merchant mariners were lost at sea. The threat of enemy attack was somewhat alleviated, when in 1942, the Navy began outfitting merchant vessels with weapons and armed guards.

First known photograph of the James Longstreet *taken at Southampton, England in 1943.*

James Longstreet *site as it appeared in the early 1990s.*

photos courtesy of Noel W. Beyle

Despite reaping the praise of both President Eisenhower and General Douglas McArthur following the war, many consider the men that served aboard these important vessels the forgotten sailors of WWII, as those who returned home were denied benefits for injuries and often overlooked in victory celebrations. In recent years, maritime and naval historians have begun to shed light on the significant contribution of the Liberty Ships and their builders and sailors. Their contribution to the war effort was tremendous—they were responsible for carrying 2/3 of all cargo leaving U.S. ports in support of the Allies overseas. This achievement is matched by their contribution to the advancement of shipbuilding technology. Today, only two unaltered Liberty Ships remain afloat; the San Francisco-based *Jeremiah O'Brien* and the *John W. Brown* of Baltimore.

James E. Longstreet: History

The coast of Eastham, Massachusetts is home to the remains of one Liberty Ship, the *James E. Longstreet*, which until recently was a visible fixture on the horizon for many residents of Cape Cod.

The *James E. Longstreet* was constructed in 1942 by the Todd Houston Shipbuilding Corporation of Irish Bend, Houston, Texas, for a cost of approximately $1,833,400. As a standard Liberty Ship, it measured close to 417 feet in length, 57 feet in breadth, and drew nearly 37 feet of water. The vessel was named for Major General James Longstreet, a hero of the Confederate Army and one of General Robert E. Lee's top officers during the Civil War.

Although by measurement and design the *James E. Longstreet* was a typical liberty ship, its career was far from ordinary, seemingly marred by mishaps right from the start. While awaiting a pilot to take the vessel into New York Harbor following its arrival from Southampton, England, the *Longstreet* was caught in a violent gale that continued for more than 24 hours. Together with two other vessels, the *Exilona* and the *Fort Douglas*, the *Longstreet* was driven ashore at Sandy Hook, New Jersey, on October 26, 1943. Given the order to abandon ship, the freighter's crew of about 70 was removed by the Coast Guard.

Although the rescue was conducted more for the benefit of observing reporters—most of the crew was capable of wading safely to shore—the *Longstreet* nevertheless sustained damage when its hull split near the number three hold. Temporarily repaired on site, it was re-floated on November 25, 1943, after a channel was dredged from behind. From there, the scarred vessel was towed to New York Harbor.

Declared a total loss, the *James E. Longstreet* was ready for the scrap yard when the U.S. Navy requested it for use as a target ship for secret experiments involving early air-to-surface guided missile systems. Stripped of its equipment and painted chrome yellow, the *Longstreet* was delivered to the Navy in June of 1944.

Following repairs of missile damage sustained over the summer months, the Longstreet was under tow back to the target area when it broke loose and grounded for a second time, near the Ambrose Channel, not far from New York. Once again, the vessel was re-floated, repaired, and towed to the target area where it was moored until a severe winter storm parted its mooring cable allowing it to drift some 80 miles out to sea. Recovered 10 days later, the *Longstreet* was finally towed to the waters off Eastham, Massachusetts where it was sunk in approximately 20 feet of water to serve as a target for new air-to-surface guided missile experiments involving a heat-seeking system known as the Dove. By the middle of 1946, the service of the *Longstreet* was no longer required for the Dove program and the vessel was used periodically by the Navy and Air Force for live ammunition target practice until 1971.

Side scan sonar record of James Longstreet *site as it appeared in September of 2003.*

Today, the Liberty Ship *James E. Longstreet* remains approximately three and a half miles off Eastham, Massachusetts in 20 to 25 feet of water with only a small portion of its structure above the surface. Full of holes and nearly cut in two, the large hulk is a favorite diving and fishing spot as the area is home to numerous flounder, tautog, fluke, and lobsters.

sonar image courtesy of American Underwater Search and Survey